

# Expanding Enlisted Lateral Entry

Options and Feasibility

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## Preface

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The current Department of Defense (DoD) Military Personnel Human Resource Strategy is “to provide Human Resource policies, programs, and legislation that ensure the right number of military personnel have the requisite skills, abilities, and motivation to effectively and efficiently execute assigned missions.” The strategy envisions more widespread use of the concept of lateral entry to recruit the appropriate number and quality of military personnel. Currently, lateral entry is used selectively in certain military grades and occupations, and constructive credit is awarded for some combination of education and experience. To support the use of lateral entry as part of the new DoD Human Resource Strategy, it is necessary to develop policies and plans that expand lateral entry and can be evaluated to determine likely outcomes.

This report explores options for expanding a specific form of lateral entry: lateral entry of non-prior-service personnel into enlisted, active-duty occupations. It reviews existing programs, identifies the potential goals of a lateral entry program, and presents an objective-based framework to link them with specific program features. The framework, developed in Chapter Two, is used in conjunction with guidance from the sponsor about the primary goals of a lateral entry program, given the current environment. The report analyzes relevant data for Service occupations, generates a complementary program design using the framework, and evaluates the feasibility of implementing a lateral entry program with the current desired characteris-

tics. The report offers conclusions and recommendations about expansion of lateral entry programs.

This research was conducted for the Office of the Assistant Secretary of Defense (Force Management Policy) within the Forces and Resources Policy Center of the RAND Corporation's National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the unified commands, and the defense agencies. Correspondence regarding this report should be sent to Dina Levy at [dlevy@rand.org](mailto:dlevy@rand.org) or to Susan Everingham, Director of the Forces and Resources Policy Center.

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## Summary

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## Background

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Most recruits into the U.S. military currently follow a set training pattern upon entry: new-entry training followed by occupational training. Some new recruits come to the military with advanced training or experience acquired outside the military, but in many cases the military retrain them in the same occupation or prepares them for a different occupation altogether. Several possible explanations exist for this seemingly inefficient practice. First, by choice, the military operates as a closed system. Except for a few exempt communities, recruits are expected to enter at the bottom, become acculturated, and complete service-provided training and experience to advance within the system. Second, the U.S. military currently has excess training capacity. Perhaps if the training capacity were limited in its ability to support recruiting needs, bypassing training through lateral entry of experienced personnel would be a more attractive option. Third, lateral entry of civilians into high ranks could be disruptive to the military culture. Yet, some forms of lateral entry into the military are accepted, including the awarding of advanced pay grades to doctors and lawyers in the officer corps and to enlisted band members based on nonmilitary training and experience. This report explores options for expanding a specific form of lateral entry: lateral entry of non-prior-service personnel into enlisted, active-duty occupations.

Several studies published in the 1990s explored the concept of lateral entry in detail and concluded that many military occupations are amenable to civilian training. In particular, occupations that are

not combat related, have a clear civilian counterpart, and are supported by multiple civilian training programs are likely to be good candidates (Winkler, Kirin, and Uebersax, 1992). In 1991, the Army launched a pilot study of lateral entry into one occupation—Light Wheeled Vehicle Mechanics (MOS 63B10). The study, which was completed in 1997, demonstrated that high school and postsecondary students with training in the occupation performed as well on an MOS Qualification Test as their military counterparts. However, for significant cost savings to be realized, a very large proportion of personnel would have to be recruited laterally without the benefit of enlistment bonuses. Lateral entry of 63B10 mechanics was never adopted into a formal program.

Only the Army and Navy have established lateral entry programs for enlisted occupations. The Army Civilian Acquired Skills Program (ACASP) offers enlistment at advanced pay grades for 98 occupations. The Navy's Direct Procurement Enlistment Program (DPEP) is open to all Navy ratings. Applicants for both programs must meet basic enlistment criteria as well as training and experience requirements in a particular skill area. Despite their existence for well over a decade, exceedingly few regular Army and Navy enlistments occur through the two programs (less than one-half of 1 percent). The Army plans to review ACASP, and the Navy is revisiting DPEP as part of its Task Force Excel initiative. The Coast Guard is also set to begin a pilot test of a new lateral entry program in the information technology skill areas. The most successful program we reviewed, however, is one recently implemented by the Canadian military. The Canadian Forces program targets 20 understrength occupations and offers enlistment bonuses to applicants who meet program requirements. This fiscal year-to-date, lateral entrants constitute more than 27 percent of recruits into the 20 occupations included in the program. The occupations that accept lateral entrants through ACASP, DPEP, and the Canadian Forces program are listed in the appendix.

Lateral entry is also used widely in the for-profit, nonprofit, and public sectors. Across the country, lateral entry programs for K-12 teachers offer teaching credentials to applicants with relevant education and experience following an abbreviated course of study. A large

proportion of local police departments employ lateral entry as a means of recruiting personnel. Many federal agencies also hire laterally, but mostly from within the public sector. Finally, military personnel (most notably pilots and mechanics) routinely enter civilian occupations laterally.

None of the studies or programs we reviewed provided a comprehensive framework to support our goal of outlining program options for expanded use of lateral entry into enlisted occupations. However, we used lessons and insights gained from our review to create a framework that links program goals with program design and to generate the profile of a candidate program. Through analysis of relevant data, we then assessed the feasibility of implementing a program with the characteristics needed to achieve current lateral entry goals.

### **Linking Lateral Entry Goals with Program Features**

---

A lateral entry program can be aimed at achieving at least four goals:

- reducing training costs,
- filling gaps in personnel profiles,
- expanding recruiting markets, and
- avoiding the disruption of general military culture.

Once the priority of goals for a given program is identified, program features should be selected to support them. Four categories of program features can be manipulated:

- occupations into which lateral entry will be permitted,
- training and experience levels required of lateral entrants,
- scale and flexibility of implementation, and
- incentive structure.

### **Occupations**

The programs and studies we reviewed vary in their criteria for selection of occupations, and in some cases, the criteria do not correspond well with program goals. In general, programs that seek to reduce training costs should include occupations with high military training

costs per trainee relative to other military occupations or relative to civilian counterpart occupations. Alternatively, occupations with lower military training costs per person but large numbers of personnel to be trained are reasonable candidates.

### **Entry Point**

Existing lateral entry programs accept entrants at a range of grade levels, up to E-7. All programs require completion of basic training upon entry, and most award rank at entry based on training and experience. Entry requirements should be tailored to program goals, but goals can sometimes compete with respect to those requirements. For instance, a program aimed at reducing training costs would experience the most significant savings if lateral entrants joined the force with advanced levels of training and experience and could skip military occupational training altogether. However, transplanting civilians into leadership positions through lateral entry is likely to be disruptive.

### **Implementation Scale**

As noted above, existing lateral entry programs in the U.S. operate on a very small scale. The number of personnel recruited through lateral entry programs in the Army and Navy is negligible, and neither program has a dedicated staff or budget. The Canadian Forces program operates on a significantly larger scale. Decisions about the scale of a program depend on goals and constraints. The primary goal of the Canadian program is to fill personnel shortages in specific occupations while constrained by a saturated military training infrastructure. The Canadian military can therefore avoid the costs of augmenting its training infrastructure by adopting a lateral entry strategy. On the other hand, the U.S. military training infrastructure has excess capacity. To achieve meaningful reductions in training costs, it must eliminate significant portions of its training infrastructure and implement lateral entry on a large scale.

### Incentive Structure

Crafting an appropriate incentive structure can be central to the success or failure of a lateral entry program. Existing programs in the U.S. suffer from inadequate incentives for both recruiters and recruits and a lack of integration into the established personnel management structure. Our review suggests that in some cases, incentives are not offered because they would negate the savings associated with a reduced training load. In cases where incentives are offered, they sometimes have a negative effect. In particular, advanced promotion opportunities and special educational benefits offered to ACASP participants are resented by personnel for whom such benefits are not made available.

### Options for Expanding Use to Reduce Training Costs

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In the present environment, the sponsor of this work considers the potential to reduce training costs the primary motivation for more widespread lateral entry. Filling personnel gaps and expanding recruiting markets are viewed as lower priorities, and the goal of preserving cohesion and culture is considered more of a constraint on the practice of lateral entry than a goal to be achieved. The focus of the last chapter of this report is therefore on outlining the characteristics of a program designed to reduce training costs and evaluating its feasibility.

Based on the preceding analysis, we conclude that a suitable program should include the following features:

- *Occupations with high military training costs.* We identified the top 10 percent of noncombat occupations with respect to training cost in the Army, Navy, and Air Force.
- *Entrants with advanced training.* To avoid training costs on an effective scale, lateral entrants should have completed at least the equivalent of advanced training in an occupation.
- *A large number of prospective lateral entrants; excess external labor supply.* High-level lateral entry can threaten cohesion, but its

effects are likely to be reduced if most or all members of an occupation are recruited laterally. Large numbers of entrants who can skip military training also enable meaningful reductions in training costs. In anticipation of the need to manage the risks of eliminating training infrastructure and of depending on lateral entry to fill personnel requirements, we looked for occupations that have consistent excesses in external labor supply.

- *Occupations with low civilian earnings.* Like other entrants, lateral entrants are more likely to enter the military if offered an incentive. Because enlistment incentives cut into the potential savings generated by implementation of lateral entry, it is preferable to rely on differences between military and civilian earnings within an occupation as an incentive for entry. Accordingly, we sought occupations whose civilian members earn less than their military counterparts.

## Conclusions and Recommendations

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Based on the goals and criteria described above, we analyzed occupations for the Army, Navy, and Air Force. We identified four possible candidate occupations for lateral entry. However, concerns about the existence of strong civilian counterparts, the reliability of civilian earnings data, and the stability of external labor supply lead us to conclude that pursuing a policy of large-scale lateral entry into even those four occupations does not show promise.

Because expanded use of lateral entry programs for non-prior-service personnel is unlikely to be successful in reducing training costs on a meaningful scale without introducing serious force management risks, we suggest a shift in focus to lateral entry of prior-service personnel, both active-duty and reserve component. A strategy emphasizing expansion of prior-service lateral entry would minimize cultural disruption, avoid training costs, and amortize costs already incurred over a longer career length.

We also recommend against the initiation of new pilot studies or programs in the near term. We suggest leaving ACASP and DPEP

intact. Though they both operate with a very low profile, neither carries administrative costs and neither causes any significant disruption, and planned reviews of the programs might lead to improvements. If the goals of filling personnel gaps or expanding recruiting markets advance in priority, decisionmakers should consider improving and enhancing these established, but little-used, programs.



## Acknowledgments

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## Abbreviations

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|        |  |
|--------|--|
| ACASP  | Army Civilian Acquired Skills Program        |
| AIT    | Advanced individual training                 |
| BLS    | Bureau of Labor Statistics                   |
| DPEP   | Direct Procurement Enlistment Program        |
| IT     | Information technology                       |
| LEAP   | Lateral Entry Accessions Program             |
| MOC    | Military occupational code                   |
| MOS    | Military occupational specialty              |
| SOC    | Standard occupational classification         |
| TRADOC | (U.S. Army) Training and Doctrine<br>Command |
| VOTEC  | Vocational or technical (training)           |
| YOS    | Years of service                             |

## Introduction

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### Background

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The U.S. military currently recruits about 180,000 new soldiers, sailors, airmen, and marines each year. The vast majority of them will follow a set pattern after entry in one of the military services: complete new-entry training (e.g., basic or recruit training) and then attend occupational training to learn general or service-specific occupational knowledge or skills. This advanced occupational training after initial training costs about \$3.3 billion in FY 2002<sup>1</sup> (Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs, and Logistics], 2002).

Some of the new entrants already have occupational skills learned through education or experience outside the military prior to enlistment. For the most part, the military ignores this general human capital and either teaches the military-specific knowledge or skills germane to the occupation to an entrant who knows the nonmilitary form or it trains that entrant for a new occupation. In either case, this practice seems less than efficient. Why are entrants not receiving credit for prior education and experience in an occupation to avoid duplicative training?

One answer is that the military operates, by choice, as a closed system. That is, new entrants, officer and enlisted, are expected to begin at the bottom of the system, become acculturated, and learn

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<sup>1</sup> Student pay and allowances account for approximately 60 to 65 percent of this estimated cost.

## 2 Expanding Enlisted Lateral Entry

occupational practices through service-provided training, education, and experience. This is the way business is done in most militaries around the world. Not all business is done this way, however. For example, doctors and lawyers (officer occupations) are accorded rank at entry based on their education and experience. Bandsmen (enlisted occupation) are selected based on their ability to perform without initial formal occupational training. Moreover, other militaries have successfully experimented with the practice for more varied military occupations.<sup>2</sup>

A second answer might be that, apart from other considerations to be explored in this report, the U.S. military currently has excess training capacity and inertia works against expanding lateral entry programs. The Canadian military had insufficient training capacity and implemented more widespread use of lateral entry to avoid the cost of expanding the military training base. It is an open question whether necessity continues to be the mother of invention. If training capacity did not exist or if a future round of base realignment and closure were to reduce it, would the U.S. military make more widespread use of lateral entry?

A third reason is that entry into higher ranks from civilian life weakens the strong military culture<sup>3</sup> and diminishes the military profession. There is social and perhaps task cohesion that results from entrants sharing common bonds of acculturation and occupational training. Until World War I, military skills were largely infantry, artillery, and seamanship and were taught by each military service. That war saw the widespread use of newer technology (e.g., tanks, modern ships, airplanes, communications), and one could argue that the military just continued to teach all skills as it had in the past even as the purely military skills became the minority of military work and

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<sup>2</sup> Note, for example, the Canadian experience to be discussed later in this report.

<sup>3</sup> As defined by the General Accounting Office (GAO), organizational culture is the underlying assumptions, beliefs, values, attitudes, and expectations shared by an organization's members. An organization's beliefs and values affect the behavior of its members (GAO, 1992, p. 1).

were supplanted by technical, supply, and administrative occupations with private-sector counterparts. Changing this for some, but not all, could prove disruptive.

Not all forms of lateral entry are rejected out of hand. Currently, lateral entry appears acceptable for some occupations if very early in a career; from one military service to another; from reserve component to active-duty component; from a status of recent military service; from enlisted status to officer status; and, as pointed out above, from a status of no prior military service in certain occupations (see Thie and Brown, 1994). Moreover, lateral entry has been used in times of national emergency requiring a rapid and massive buildup, such as during the World War II buildup to a peak strength of about 14 million people. The sponsor of the present work is interested in evaluating the possibility of expanding a specific form of lateral entry: entry of trained or experienced personnel without prior military service into enlisted active-duty occupations at advanced pay grades.

### **Past Studies of Lateral Entry**

Most general studies of military personnel management recommend use of lateral entry. Recently, the Navy Personnel Task Force (see Department of the Navy, 2000) suggested "flexible approaches to development and retention of both military and civilian personnel . . . perhaps including such private-sector techniques as mid-career and lateral entry."

Several studies completed in the 1990s reviewed the concept of lateral entry in detail. In work sponsored by the Office of the Assistant Secretary of Defense for Force Management Policy more than a decade ago, RAND reviewed civilian training options for the military (see Hanser et al., 1991). The study examined alternatives for the timing, cost, location, and curriculum control of military training and developed a conceptual framework designed to guide the selection of cost-effective options, taking into account effects on recruitment and retention. Hanser et al. concluded that many military occupations are amenable to civilian initial skill training. They also suggested that while more widespread lateral entry could decrease training costs, it might also increase recruiting costs. The report

therefore recommended preimplementation pilot testing of lateral entry programs accompanied by analysis of program outcomes, including recruiting and accessions costs, the effectiveness of abbreviated refresher training, overall cost effectiveness of the program, attrition from basic training and units, knowledge retention, and job performance.

In 1991, guided in part by the RAND study, the Army embarked on a six-year pilot study of lateral entry into a single occupation—MOS 63B10, Light Wheeled Vehicle Mechanic (see Army Training and Recruiting Command Analysis Center, 1994). Proponents of lateral entry at the Army's Training and Doctrine Command (TRADOC) believed that significant cost savings could be achieved by downscaling in-house Army training for 63B10 recruits and taking advantage of the widely available vehicle mechanic training programs in the civilian sector. MOS 63B10 was chosen because it is a "high density" MOS that requires a large number of recruits and because it has a close civilian equivalent.

The study tracked outcomes for both an experimental group and a control group. The control group consisted of recruits entering through established channels, with no prior training in the occupation. Personnel recruited into the experimental group were high school and postsecondary students with relevant vocational or technical (VOTEC) training. To qualify for the experimental group, prospective recruits had to pass the same MOS Qualification Test that was administered to all 63B10 personnel upon completion of advanced individual training (AIT). Those who passed proceeded to basic training, followed by four weeks of abbreviated AIT instead of the normal 13-week AIT course. There were 220 people in the control group and 211 in the experimental group.

In 1997, TRADOC reported that high school and postsecondary students with VOTEC training did as well and better, respectively, on an MOS Qualification Test than the Army AIT students in the control group. Further, the study found that shortened AIT did not degrade soldier effectiveness in the field. The analysis also revealed that the Army could realize an economic benefit by implementing four-week AIT for 50 percent of 63B10 mechanics by ena-

bling recruits to move to their units nine weeks sooner (Army Training and Recruiting Command Analysis Center, 1997). However, the 63B10 lateral entry program was never implemented, for several possible reasons. First, recruiters did not have an incentive to seek out recruits for the program. No advertising or promotional materials about the 63B10 lateral entry program were made available, and no recruiting goals were set for lateral entrants. Competition with more attractive Army recruitment incentives, such as the Army Civilian Acquired Skills Program (ACASP) that offered advanced pay grade, accelerated promotions, and an enlistment bonus in some cases, decreased the attractiveness of the 63B10 program. In addition, although some savings in training costs could be realized if the number of instructors were cut, offering enlistment incentives to large numbers of VOTEC recruits would erode all of the savings and benefits. A number of other studies followed the initiation of the Army pilot program. In 1992, a RAND study that examined alternative approaches for Army training identified characteristics of candidate occupations for civilian training (see Winkler, Kirin, and Uebersax, 1992). Winkler, Kirin, and Uebersax concluded that civilian training would be most feasible and cost-effective for Army occupations that are not combat related, have a corresponding primary civilian occupation as well as correspondence to multiple civilian occupations, and are supported by multiple civilian training programs.

More recent RAND research has explored the appropriateness and uses of lateral entry for military personnel. In their study of military officer career management, Thie and Brown (1994) concluded that lateral entry is best used where military knowledge and experience are less critical than particular skills and competencies. Another study highlighted the potential for lateral entry to decrease human resource management costs and meet the demand for technical skills as nonmilitary technologies are increasingly utilized by the Services (Robbert et al., 1997).

### **Current Military Lateral Entry Programs**

In their 1991 report, Hanser et al. reviewed existing lateral entry programs in the U.S. military (see Hanser, Davidson, and Stasz, 1991,

Appendix A). Tyson and Horowitz (1992) prepared a similar review the following year. Both studies reported very limited lateral entry of non-prior-service personnel into enlisted active-duty occupations: Less than one percent entered at E-4 or above. Although the Army 63B10 pilot study followed on the heels of the 1991 RAND report, no new lateral entry programs have been established since. The programs in existence at the time—the Army Civilian Acquired Skills Program (ACASP) and the Navy's Direct Procurement Enlistment Program (DPEP)—continue to operate in an almost identical fashion today. The Air Force and Marine Corps do not allow lateral entry of non-prior-service personnel, but the Air Force allows recruits to test out of technical training without advancement to higher pay grades.

ACASP offers enlistment at advanced pay grades (up to E-5) for 98 occupations. Accelerated promotion is also offered to recruits in some occupations. ACASP participants must meet basic enlistment criteria, training requirements, and work experience in a particular skill area. The specific requirements vary by occupations. For all occupations, relevant training and experience must be completed no more than 24 months before enlisting (Army Regulation 601-210). As in 1991, less than 1 percent of regular Army enlistments occur through ACASP.

In the early 1980s, the Navy experimented with the Lateral Entry Accessions Program (LEAP). LEAP targeted 13 critical skills and was designed to bring civilians in at pay grades E-4 to E-6. However, the job-knowledge test administered to prospective lateral entrants was reportedly very difficult to pass and, because of the disappointing number of accessions, the program was never implemented (see Tyson and Horowitz, 1992). The Navy followed LEAP with DPEP, which is still in existence but rarely used. Navy Enlisted Community Managers have the authority to approve DPEP applicants from any rating, but the program is currently used for only five ratings. Applicants who have completed vocational training but have no work experience are eligible for enlistment at grades E-1 through E-3, depending on the number of classroom hours completed. Applicants with both training and work experience are eligible for advanced pay grades from E-4 to E-7, based on work experience and



training. Applicants must also meet minimum age requirements to qualify for each advanced pay grade. For example, in addition to the specific training and experience requirements, applicants must be at least 28 years old to qualify for E-7, 26 years old to qualify for E-6, and so on (Navy Recruiting Manual-Enlisted 1130.8F, 2000). A source at the Navy Recruiting Command estimates that fewer than 20 people have entered the Navy through DPEP in the last five years.

The Coast Guard currently plans to introduce a lateral entry program, likely targeted at information technology (IT) skill areas. Because of its new requirements as part of the Department of Homeland Security and its focus on "optimal manning," the Coast Guard has a greater need for trained and experienced personnel to accomplish its mission. It plans to look across all skill areas to determine where it will experience shortfalls so it can target a lateral entry program to specific ratings and pay grades. As a first step, the Coast Guard is partnering with the National Skills Standard Board in a competency match effort aimed at developing meaningful lateral entry standards for IT skills. Following this effort, the Coast Guard plans to pilot a lateral entry program for a new IT rating in 2003.

The Canadian Forces began implementation of a lateral entry program in 2002. The program targets 20 understrength Regular Force occupations and allows lateral entry at two points. Recruits can enter with a certificate or diploma equivalent to the completion of initial skill training, or they can enter with a civilian VOTEC qualification equivalent to advanced training in the occupation. Enlistment bonuses are also offered to lateral entrants, and the amounts vary by occupation. The program has fallen slightly short of accessions targets for some occupations but vastly exceeded targets for others. As of the end of January 2003, lateral entrants constitute more than 27 percent of the total number of recruits into the program's occupations in FY 2003. The occupations that accept lateral entrants through ACASP, DPEP, and the Canadian Forces program are listed in the appendix.

#### **Lateral Entry into the Civilian Sector**

Lateral entry is used widely in the for-profit, nonprofit, and public sectors to alleviate shortages of personnel, including in some systems

where, as in the military, the norm is to recruit most personnel at entry level. For nearly two decades, elementary and secondary schools have recruited teachers laterally for subject areas that are difficult to fill, including mathematics and science (Darling-Hammond, Hudson, and Kirby, 1989). Most programs offer a teaching credential to applicants with relevant experience and education following a shortened course of training, somewhat akin to abbreviated AIT in the military.

Lateral entry is also common in the public sector. Local police forces across the country advertise nationally for lateral recruits. A 1990 nationwide survey of police department management practices found that approximately 43 percent of departments (serving populations of 10,000 or more) employed lateral entry as means of recruiting personnel (International City/County Management Association, 1991). Proponents of lateral entry in law enforcement departments argue that it can benefit recruiting, promote individual mobility, increase cost-effectiveness of training, and foster competition and educational growth (Nix, 1990). Many federal agencies hire laterally but almost exclusively from within the public sector. Competition for salaries with other sectors, a lengthy hiring process for those outside the public sector, and entrenched cultural resistance from the civil service toward outsiders who have not "paid their dues" are the main impediments to hiring laterally from the private sector (Bikson et al., 2003).

Military personnel (e.g., pilots, mechanics) routinely enter civilian occupations laterally. Several programs facilitate the transition of military personnel to civilian jobs. Operation Transition, a service provided by the Defense Manpower Data Center, matches separating or retiring military personnel with civilian jobs. The American Council on Education's Guide to the Evaluation of Educational Experiences in the Armed Services shows how soldiers can convert military training to college credit. DoD's Troops to Teachers program places former military personnel in high-need school districts.

## Approach

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The studies and programs we reviewed yielded important insights into the types of occupations suited to lateral entry as well as the reasons underlying the limited use of existing lateral entry programs in the Army and Navy and the nonexistence of lateral entry into enlisted occupations in the Air Force and Marine Corps. Yet, our review did not uncover any comprehensive framework for linking lateral entry goals to program design options. Such a framework should guide the design of any program. Accordingly, the next step in our analysis was to identify the potential goals of a lateral entry program and the program features that can be manipulated to meet those goals. In most cases, we were able to generate probable or recommended relationships between each design feature and lateral entry goals. Those relationships constitute the framework on which our design effort was based. With sponsor direction, we prioritized the goals of a prospective lateral entry program and generated a profile of complementary program features. We then analyzed relevant data to evaluate the feasibility of implementing a program with the necessary characteristics.

## Organization of the Report

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In the next chapter, we list the goals of lateral entry programs and discuss the selection of program options consistent with those goals. Chapter Three explores a program design tailored to the current primary goals of a prospective program for enlisted active-duty occupations. Conclusions and recommendations are presented in Chapter Four.

## **Lateral Entry Goals and Program Options**

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### **Potential Goals of a Lateral Entry Program**

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A lateral entry program can be designed to meet several goals, including reducing training costs, filling gaps in personnel profiles, expanding recruiting markets or opening new markets, and avoiding the disruption of units and general service culture. The potential goals of a lateral entry program are each discussed in turn, below.

#### **Reduce Training Costs**

As mentioned previously, initial skills training is a costly enterprise with high fixed and variable costs. The fixed costs are largely sunk, and this report will focus on the variable, per-person costs of training. One of the difficulties of claiming benefits from reduced training costs is the scalability of training savings. A large number of lateral entrants is generally needed for significant organizational change to take place. For example, at what point is one fewer instructor needed; are fewer instructional materials needed; are fewer training organizations needed? Given the magnitude of the training establishment, it is unlikely that any real reductions of cost would be observed with only a few lateral entrants. Extremely small savings are no more than round-off error. Moreover, the savings achieved by downsizing training could be counteracted by other costs incurred to attract lateral entrants.

Currently, at least some services claim that they train all tasks needed to be successful in an occupation. Other services claim they teach a percentage of tasks. Some services are considering reducing

the amount of initial skills training new entrants receive to move personnel more quickly to units for on-the-job training with real equipment in real scenarios. To the extent that a service does not currently train all tasks or reduces the length of training, any potential training cost savings from lateral entry are reduced. Nonetheless, a frequently recognized goal of a lateral entry program is to reduce the cost of training by taking advantage of the general human capital a prospective entrant has gained through his or her own investment in education or experience.

#### **Fill Gaps in Personnel Profiles**

Personnel gaps can be created when mismatches exist between authorizations for and inventory of personnel by occupation, by grade, or by experience. Typically, the requirements or authorizations for personnel can change more quickly than a closed personnel system can build (or reduce) an inventory of such personnel. Moreover, in some occupations, the demand for more-experienced personnel is higher than for less-experienced personnel. It is difficult for a traditional closed system pyramid to meet demand for experienced people in the absence of extremely high retention rates. Another gap-producing scenario is one in which promotion rates in certain occupations are accelerated to fill shortages at higher grades, essentially shifting the personnel shortages lower into the grade structure.

Lateral entry is frequently discussed as a means for obtaining personnel in occupations that require greater compensation (higher grades) or greater experience. The gap between authorizations and inventory is filled directly through lateral entry rather than over time through the workings of a closed system. The military has other tools to address these gaps. For example, an enlistment bonus can be used to channel personnel into occupations with unmet demand; a selective reenlistment bonus can be used to gain greater retention at particular points in experience in occupations where it is needed; and high year of tenure (retention control points) policies can be changed to allow people to continue in service at their present grade. A question that must be addressed is whether lateral entry is a complement to these existing tools or a substitution for them.

### **Expand Recruiting Markets or Open New Markets**

Each of the military services is interested in reaching additional people in its traditional recruiting market (high-quality high school graduates) and in expanding into nontraditional markets. New markets are usually identified in terms of demographic categories, but new markets also include the post-high school labor market and the community college or college market. Lateral entry is a means to tap the market of people who have developed occupational skills through either education or workplace experience and might consider military service if their skills were recognized by the personnel management system.

### **Preserve Unit Cohesion, Avoid Disruption of Culture**

The importance of cultural resistance to lateral entry in the military should not be underestimated. Cultural issues affect the structure and success of existing Army and Navy programs. ACASP and DPEP require recruits to complete abbreviated AIT in service schools so they learn “the service way.” However, service schools resist losing training dollars and maintaining a capacity to provide abbreviated training for lateral entrants. The schools, along with many recruiters, consider lateral entrants to carry the “Scarlet V”—there is a stigma attached to VOTEC schools and students.<sup>1</sup> There is also resentment about the rank and benefits awarded to personnel recruited through ACASP and DPEP. This goal is qualitatively different from the previous ones, which are positive. This goal seeks to avoid disrupting something that already exists (cohesion and a common culture) and is more of a constraint than a goal.

Cultural considerations vary by Service, occupation, and career history. Services that claim to train 100 percent of their critical tasks (e.g., the Air Force and Marine Corps) may be more resistant to lateral entry. Indeed, as noted in the introduction, lateral entry is not permitted into enlisted occupations in the Air Force and Marine Corps. In the Army and Navy, the military culture accepts lateral

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<sup>1</sup> Based on discussions with recruiting experts.

entrants for occupations that are filled significantly or solely by lateral entrants, such as enlisted band members and morticians. Lateral entrants also routinely enter officer legal and medical occupations. Interestingly, there is some resistance, though less so, to lateral entry of prior-service members with or without civilian training reentering the military. Thus, it is reasonable to expect yet more resistance to lateral entry of personnel who lack prior service. To achieve success, a lateral entry program should be designed either to minimize anticipated cultural disruption or to manage cultural change.

### **A Framework Linking Goals of Lateral Entry to Specific Program Features**

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A given program can be aimed primarily at achieving a single goal, or it may be intended to satisfy more than one of the goals described above. If the latter, designing a suitable program could become challenging because goals and constraints can compete with respect to program features. For instance, a lateral entry program might be introduced to help meet requirements at a high pay grade, but high-level lateral entry into some occupations could cause cultural disruption and threaten unit cohesion.

Despite potential challenges, the goals of the program should dictate program design. The following four categories of program features that affect program goals can be manipulated:

- occupations into which lateral entry will be permitted,
- training and experience levels required of lateral entrants,
- scale and flexibility of implementation (e.g., number of occupations in the program, whether the number is fixed or variable), and
- incentive structure.

Past studies and current programs vary in the degree to which they demonstrate a clear correspondence between program goals and design. In the sections that follow, we present recommended or prob-

able relationships between selected program features and goals, drawing on lessons from past studies, existing lateral entry programs, and planned efforts.

### Occupations

The programs and studies we reviewed varied in their explicit goals and also in their approach to selecting occupations for lateral entry (see Table 2.1). All programs used a combination of selection criteria. Criteria for the two Army programs included assessments of “greenness” (i.e., how Army-specific the occupation is), and, although the only stated goal for both was a reduction in training costs, cost of training was not a primary criterion for the selection of occupations. The Navy’s DPEP, the Canadian Forces program, and the prospective Coast Guard pilot study all relied appropriately on an analysis of grade profiles in selecting occupations, as they aim to fill personnel gaps with lateral entrants. In making determinations of the feasibility of lateral entry, nearly all programs examine the match between either the job tasks or training tasks required for corresponding civilian occupations.

**Table 2.1**  
**Stated Goals and Occupation Selection Methods of Lateral Entry Studies and Programs**

| Service Program         | Stated Goal(s)                    | Selection Method   |
|-------------------------|-----------------------------------|--|
| ACASP                   | Reduce training cost              | Career field managers selected based on “greenness” and civilian skill match   |
| Army 63B10 Pilot Study  | Reduce training cost              | TRADOC selected based on “greenness,” technical requirements, and training task match                                      |
| Navy DPEP               | Reduce training cost<br>Fill gaps | Enlisted Community Managers select based on analysis of grade profile  |
| Coast Guard Pilot Study | Reduce training time<br>Fill gaps | Coast Guard selected IT rating based on gap in grade profile; other ratings will be examined based on civilian skill match |
| Canadian Forces Program | Fill gaps                         | Selected understrength occupations with strong civilian training match   |



Table 2.2 lists selection criteria corresponding to the goals of lateral entry programs. As shown in the table, each goal should be supported by different criteria. If the primary goal is to reduce training costs, occupations with high training costs relative to other military occupations or compared with civilian counterpart occupations are attractive choices. Occupations with lower training costs but large numbers of personnel to be trained could also be candidates. If a goal is to fill gaps at specific pay grades, the gaps can often be identified by career field managers. Other indicators of gaps are selective reenlistment bonuses and high rates of early promotions into a pay grade. Selection of occupations can also be used to expand into new recruiting markets. In such a case, the selection strategy would depend on the nature of the recruiting goal.

As has been articulated in a number of studies (Winkler, Kirin, and Uebersax, 1992; Thie and Brown 1994; and Robbert et al., 1997), combat occupations are not good candidates for lateral entry. They do not have clear civilian counterparts, and civilian entrants would threaten unit cohesion. In general, for lateral entry to be feasible and sustainable, an occupation should have at least one clear

**Table 2.2**  
**Occupation Selection Criteria Corresponding to Lateral Entry Goals and Constraints**

| Goal/Constraint                                   | Selection Criteria  |
|---|---|
| Reduce training cost                              | High training costs among military occupations<br>High costs relative to civilian training  |
| Fill gaps in grade structure                      | Large numbers of personnel to be trained<br>Manager-identified gaps in grade profile<br>Unusually high-rate, early promotions<br>On selective reenlistment bonus (SRB) list |
| Expand recruiting market, open new markets        | Depends on specific nature of recruiting goal   |
| Preserve unit cohesion, avoid cultural disruption | Assigned to relatively homogeneous units<br>Not combat-related  |
| General constraints                               | High civilian training and/or job task match<br>Entrants of equal or better quality   |

civilian counterpart supported by multiple civilian training programs (Winkler, Kirin, and Uebersax, 1992). In addition, civilian entrants must demonstrate levels of competence equal to or higher than their military counterparts if significant postentry training is to be avoided.

### Entry Point

The programs and studies we reviewed display a range of entry requirements (see Table 2.3). Entry into some programs is conditional on the achievement of training milestones, whereas other programs require a combination of training and experience and accept entrants at a range of levels. However, all programs require entrants to complete basic training.<sup>2</sup> None accept lateral entry into pay grades higher than E-7, though for most occupations in the programs, the limit is E-5 or lower.

The training and experience requirements for lateral entry should be tailored to the goals of the program. Lateral entry of more-experienced personnel could produce significant cost savings by obviating the need for advanced military occupational training. The extent to which lateral entrants with different levels of training and

**Table 2.3**  
**Entry Requirements of Lateral Entry Programs Reviewed**

| Service Program         | Entry Requirements   |
|-------------------------|--|
| ACASP                   | Varies by MOS; usually 2 years of experience or experience plus training               |
| Army 63B10 Pilot Study  | VOTEC certification equivalent to completion of AIT                                    |
| Navy DPEP               | Low grades: minimum classroom hours<br>Higher grades: minimum experience plus training |
| Coast Guard Pilot Study | To be determined   |
| Canadian Forces Program | Initial skills training, certificate<br>Advanced training plus experience              |

<sup>2</sup> Table 2.4 uses a typology of training received prior to entry. After entry, lateral entrants could be provided additional training beyond basic training but short of advanced military occupational training. Doing so would limit the training cost benefit but possibly reduce the cost of disruption.

experience can help fill personnel gaps will depend on the specific nature of the gaps. Using lateral entry to address any shortages of personnel at high pay grades would also open new recruiting markets. However, higher pay grades carry increasing leadership responsibilities, and transplanting leaders can be disruptive in any sector but perhaps particularly so in the military. Table 2.4 outlines likely relationships between the training and experience levels of entrants into the enlisted force and the goals of programs.

#### Implementation Scale, Flexibility

Decisions about the scale of implementation of a lateral entry program can determine the cost-effectiveness of the program as well its long-term sustainability. The number of occupations included in the program, the percentage of personnel entering laterally into a given occupation, the size of program administration, and any special training infrastructure required to prepare lateral entrants are all aspects of implementation scale.

**Table 2.4**  
**Relationship Between Lateral Entry Goals and Training and Experience Levels of Recruits**

| Training and Experience Levels of Recruits       | Lateral Entry Goal    |                     |                           |                            |
|--|-----------------------|---------------------|---------------------------|----------------------------|
|  | Reduce Training Costs | Fill Personnel Gaps | Expand Recruiting Markets | Preserve Cohesion, Culture |
| No vocational training prior to entry            | 0                     | 0                   | 0                         | 0                          |
| Some vocational training prior to entry          | +                     | D                   | +                         | -                          |
| Advanced vocational training prior to entry      | ++                    | D                   | ++                        | --                         |
| Advanced training plus experience prior to entry | ++                    | D                   | ++                        | ---                        |

NOTE: A "0" denotes the status quo or a neutral state, "+" denotes a positive relationship, "-" denotes a negative relationship, and a "D" means that the relationship depends heavily on other factors. This table is premised on the service acknowledging the value at entry of prior training and experience. Moreover, our assessment is a relative one and not based on precise numbers.

Table 2.5 shows the numbers of occupations included in the programs we reviewed along with the percentage of recruits entering through each program. Very few personnel are recruited through the established Army and Navy lateral entry programs, ACASP and DPEP. ACASP includes a large number of occupations, but only recruits into the Army band are brought in exclusively through the program. Lateral entrants comprise less than one-half of 1 percent of recruits in the remaining ACASP occupations. DPEP is open to all Navy ratings, but only five recruit through the program, and a representative from the Navy Recruiting Command estimates the total number of recruits brought in through DPEP at 20 or fewer since 1998. Neither ACASP nor DPEP has a staff or budget dedicated for its activities, yet special training is required for most occupations in those programs. After basic training, lateral entrants are required to complete abbreviated AIT to acquire the service-specific skills required for their work.

The Canadian Forces program operates on a much larger scale. It includes 20 understrength occupations, and in FY 2002 has recruited more than 500 personnel laterally from the civilian sector—more than 250 personnel above the program's target number, and approximately 27 percent of the total number of recruits into those occupations in the same period. Lateral entrants are not required to complete additional training in their occupational area, but they must complete basic training upon entry. Initially, some resistance arose in the field to lateral entrants without prior military experience. However, the high levels of competence demonstrated by lateral entrants along with motivation from senior leaders defused the resistance.<sup>3</sup>

Gaps in the force structure of the 20 occupations included in the Canadian Forces lateral entry program stem in large part from a

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<sup>3</sup> Personal communication, Lt. Col. Larry Grandmaison, Military Human Resource Directorate, National Defence Headquarters, Ottawa, Canada.

**Table 2.5**  
**Number of Occupations and Percentage of Personnel Recruited Laterally**  
**Through Reviewed Programs**

| Service Program         | Number of Occupations                       | Percentage of Recruits Entering Through Program                  |
|-------------------------|---|--|
| ACASP                   | 98 (includes 16 band MOSs)                  | 0.3 percent of non-band recruits<br>100 percent of band recruits |
| Army 63B10 Pilot Study  | 1, though several others were considered    | 49 percent<br>(211 in experimental group, 220 in control group)  |
| Navy DPEP               | Unlimited, but currently only 5 use program | Very low; fewer than 20 lateral entrants in five years           |
| Coast Guard Pilot Study | 1 (IT rating)                               | To be determined   |
| Canadian Forces Program | 20  | 27 percent year-to-date  |

bottleneck in training. The Canadian system cannot train enough recruits fast enough to fill its personnel requirements. Recruiting laterally has allowed the Canadian military to bypass its saturated training infrastructure to fill gaps in its force structure. For the Canadians, a lateral entry strategy avoids additional costs associated with augmenting the existing training structure. On the other hand, the U.S. military training infrastructure is large enough to support military personnel requirements. Recruiting small numbers of lateral entrants would only result in savings equal to the marginal cost of training those entrants but would not reduce the more substantial costs associated with operating and maintaining training infrastructure. Thus, given the status quo in the United States, much of the military training infrastructure must be eliminated for meaningful training cost savings to be realized. In other words, a large percentage of the workforce within a given occupation must be recruited laterally.

Table 2.6 illustrates the relationship between the percentage of recruits entering laterally and the goals of lateral entry. As noted above, training cost savings will be negligible unless military training

for a given occupation is dramatically downscaled or shut down altogether. However, the goal of filling personnel gaps (i.e., the Canadian objective) can be achieved with lateral entry on a smaller scale. The ideal percentage of recruits entering laterally in that case will depend on the nature and size of the gaps. For some occupations, the Canadian military has recruited 10 percent of personnel laterally; for others, more than 30 percent are lateral entrants.

The percentage of recruits entering laterally also carries interesting implications related to the constraint of avoiding disruption to military culture. Very small numbers of lateral entrants are likely to be looked at as rare exceptions to the rule and will not likely threaten either task or social cohesion. However, as the number of lateral entrants increases, two separate recruited communities within a single occupational group or a single unit become evident. Those who entered through previously established traditional recruiting and training channels might feel as though the lateral entrants have not "paid their dues" yet are treated equally. There is potential for disruption in social cohesion and possibly in task cohesion. If all members of an occupational group are recruited laterally, however, equality is once again established, and cultural issues disappear in units. Social and task cohesion are simply formed around a different norm. Such is the case with band members in the enlisted force and with members of medical and legal occupations in the officer corps. Indeed, across all goals, recruiting all of an occupation's personnel laterally seems to be the best option if lateral entry is to be seen as a successful policy (see Table 2.6).<sup>4</sup>

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<sup>4</sup> We show 50 percent of recruits entering laterally as maximally disruptive to unit cohesion and culture. In this scenario, lateral entrants and conventional entrants would form opposed "camps" within a career field. We speculate that this effect would be especially true during transition to the changed policy. We could also speculate that, especially in a steady state, a cadre of established lateral entrants (e.g., 50 percent of the career field) could establish lateral entry as an alternative but equally valid way of paying "dues" and providing a supportive and socializing constituency for further new lateral entrants. The more general point is that disruption is likely to increase as the percentage of lateral entrants increases and then decrease again as the percentage approaches 100. We make no claim that 50 percent is the exact point the effect would change.

**Table 2.6**  
**Relationship Between Lateral Entry Goals and Percentage of Recruits**  
**Entering Laterally**

| Percentage of<br>Recruits Entering<br>Laterally | Lateral Entry Goal          |                           |                                 |                                  |
|---|-----------------------------|---------------------------|---------------------------------|----------------------------------|
|   | Reduce<br>Training<br>Costs | Fill<br>Personnel<br>Gaps | Expand<br>Recruiting<br>Markets | Preserve<br>Cohesion,<br>Culture |
| None  | 0                           | 0                         | 0                               | 0                                |
| 1   | 0                           | +                         | 0                               | -                                |
| 10  | 0                           | D                         | +                               | --                               |
| 50  | +                           | D                         | ++                              | ---                              |
| 100   | ++                          | D                         | ++                              | 0                                |

NOTE: A "0" denotes the status quo or a neutral state, "+" denotes a positive relationship, "-" denotes a negative relationship, and a "D" means that the relationship depends heavily on other factors.

Yet, eliminating all or a significant portion of the training infrastructure for a particular occupation reduces the system's flexibility and therefore carries serious risks. If external labor supply shrinks because of increased civilian job opportunities or higher pay in the civilian sector or if the civilian labor market is too small to support needed growth of some military occupations, the military will lack the means to produce qualified and trained personnel without building additional infrastructure. At least two options can minimize such risks. One option is to maintain a reasonable minimum training infrastructure for all occupations represented in the military and to use lateral entry to augment the force when excess external labor supply is detected. ACASP and DPEP are currently configured to support such an option. Neither program places caps on the numbers of lateral entrants, and although ACASP is designed for a limited number of Army occupations, DPEP is open to all Navy ratings.

A second option is to eliminate the military training for an occupation and recruit 100 percent laterally only if consistent excess labor supply exists for that occupation. Such a strategy would conceivably reduce, but not eliminate, the risks associated with shutting down military training. Consistent historical and forecasted excesses in labor supply are no guarantee of adequate future supply. This latter option will be explored further in the next chapter.

**Incentives, Integration into Personnel Management Structure**

The incentive structure for recruits and recruiters has been key to the limited use of existing lateral entry programs in the United States. For some occupations included in the programs, recruits can often make more money outside the military services, and because enlistment bonuses associated with the programs are limited or nonexistent, competition with other recruiting incentives makes them less attractive in some cases.

Recruiter and field awareness of the programs is low as well. Many Army commanders are not aware of the ACASP and do not honor the accelerated promotion benefits. ACASP is not emphasized in recruiter training and, as noted above, has no independent staff or funding. The Chief of Naval Personnel has not encouraged Navy recruiters or classifiers to use DPEP. No advertising or promotional materials were made available to recruiters during the Army's 63B10 pilot, and the project was discarded when its major proponent left TRADOC. Further, none of the programs establish recruiting goals for lateral entrants, and, even if they did, recruiters do not have programs in place for recruiting in VOTEC schools.

On the other hand, offering some incentives can have a negative effect. Advanced promotion opportunities and special educational benefits are offered to lateral entrants in some ACASP occupations, but they sometimes cause resentment among personnel to whom they are not offered. One reason monetary enlistment incentives are not offered is that in some cases offering such incentives negates the savings in training costs. Analysis conducted as part of the Army 63B10 pilot program suggests that enlistment incentives could not be supported even if half of 63B10 recruits were already trained mechanics (Army Training and Recruiting Command Analysis Center, 1997).

Expected relationships between selected enlistment incentives and lateral entry goals are depicted in Table 2.7. As shown in the table, enlistment bonuses are traditionally used to channel personnel into occupations where shortages exist, so such bonuses are most helpful with respect to the gap-filling goal. As noted above, advanced promotion can also fill gaps at higher pay grades and perhaps attract a new population of recruits interested in quick advancement. How-



ever, experiences in ACASP have shown that advanced promotion opportunities can cause resentment. Similarly, offering educational benefits to some equally qualified members of an occupation and not others based on entry program is likely to be disruptive, although such a strategy might also have the benefit of attracting personnel with a special interest in professional development. Offering lateral entrants choice of assignments would probably be the most benign enlistment incentive of those included in the table. It could help fill location gaps without affecting military culture.

### Reducing Training Costs Is Principal Goal of Lateral Entry

The scope and resources of this research did not allow for a formal evaluation<sup>5</sup> of the importance of each of the goals covered in this

**Table 2.7**  
**Relationship Between Lateral Entry Goals and Selected Enlistment Incentives**

| Enlistment Incentive | Lateral Entry Goal    |                     |                           |                            |
|----------------------|-----------------------|---------------------|---------------------------|----------------------------|
|                      | Reduce Training Costs | Fill Personnel Gaps | Expand Recruiting Markets | Preserve Cohesion, Culture |
| Enlistment bonus     | U                     | ++                  | 0                         | 0                          |
| Advanced promotion   | 0                     | ++                  | +                         | --                         |
| Educational benefits | 0                     | 0                   | +                         | -                          |
| Choice of assignment | U                     | +                   | 0                         | 0                          |

NOTE: A "0" denotes the status quo or a neutral state, "+" denotes a positive relationship, "--" denotes a negative relationship, and a "U" means that the incentive and the goal are unrelated.

<sup>5</sup> For example, methods of multi-objective decisionmaking or "values-focused thinking" would be applicable.

chapter. However, we did ascertain the importance placed by our sponsor on each goal and use that guidance in the remainder of our assessment. In the present resource environment, the goal of reducing training costs is perceived to be the principal motivator for more widespread adoption or expansion of lateral entry. Filling personnel gaps and expanding recruiting markets are seen as about equal in importance to each other but have much lower priority than reducing costs. The goal of preserving cohesion and culture is considered more of a constraint on the practice than as a goal to be achieved. Thus, in the next chapter, we focus on the goal of reducing training costs. We outline the characteristics of occupations that best fit the sponsor's principal goal and present a supporting analysis.

## **Options for Expanding the Use of Lateral Entry to Reduce Training Costs**

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### **Profile of a Candidate Program**

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Having identified the reduction of training costs as the primary goal, we proceed to select complementary program features, including occupations, training and experience levels of entrants, percentage of personnel to be recruited laterally, and enlistment incentives. In the previous chapter, we also named two general constraints within which a program must be designed and outlined strategies for reducing the risk associated with large-scale lateral entry into an occupation. General constraints include attracting entrants of equal or higher quality than mainstream recruits and selecting occupations that have at least one strong civilian counterpart and multiple corresponding training programs. A primary risk-reducing strategy is to eliminate training only if there is evidence of consistent excesses in external labor supply.

Based on the analysis presented in the previous chapter, we conclude that a suitable program should include the following features:

- occupations with high military training costs,
- entrants with advanced training,
- enough external labor supply to consistently support a large number of lateral entrants (i.e., 50 percent or more of total recruits), and
- occupations whose civilian members earn the equivalent or less than their military counterparts.

We explain the rationale for each feature below and describe the data used in the analysis that follows.

### **Occupations with High Training Costs**

As suggested in Table 2.2, given the goal of reducing training costs, appropriate candidate occupations are those that demonstrate high training costs relative to other military occupations or relative to their civilian counterparts, and high-load occupations, which may have lower training costs but large numbers of personnel to be trained. Data availability and limited resources led us to use the first option as a criterion, but the other two options would be equally valid. We restricted the scope of our search to the top 10 percent of noncombat occupations. Training is structured somewhat differently within each of the military services, and each service follows its own conventions in measuring and reporting the total cost of training. Accordingly, cost comparisons across services should not be made using the data provided here. The following is a description of the composition of the training cost figures for each service:

- Army training costs include the following fixed and variable direct costs: military pay, including student pay and allowances, and operations and maintenance costs for AIT.<sup>1</sup>
- Navy training costs include military pay, including student pay and allowances, and operations and maintenance costs for “A” School Training.<sup>2</sup>
- Because Marine Corps personnel are often trained in Army or Navy schools, training costs for the Marines are difficult to isolate and are not included in this analysis.
- Air Force training costs include variable course costs, pay and allowances accrued toward leave, and acquisition (recruiting, travel, clothing) costs.<sup>3</sup>

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<sup>1</sup> Source: TRADOC.

<sup>2</sup> Source: NAVED-TRACOM.

<sup>3</sup> Source: SAF/FMC (AFI 65-503 Cost and Planning Factors, Table 18-1a).

We include information on training length in the analysis, in case priority is placed on lateral entry as a means to reduce time in training or comparison of costs per week becomes an otherwise relevant consideration.

**Entrants with Advanced Training**

To avoid training costs on an effective scale, a lateral entry program should seek recruits with relatively high levels of training and experience (see Table 2.4). A lateral entrant should at least have completed the equivalent of AIT for an occupation if savings are to be realized. As discussed in detail in Chapter Two, high-level lateral entry could provoke resentment in certain circumstances among those who enter through conventional channels. One way to avoid such resentment is to recruit most or all members of an occupation laterally.

**Large Numbers of Lateral Entrants**

If most or all recruits enter an occupation laterally, cultural resistance will likely be reduced (see Table 2.6). Army band personnel are recruited exclusively through ACASP. Doctors and lawyers in the officer corps are also recruited laterally. Different treatment of some personnel within an occupation is received poorly, but employing different recruiting practices across occupations seems to be nonthreatening. Recruiting large numbers laterally also allows the dramatic downsizing or total elimination of military training infrastructure for an occupation. Sufficient external labor supply is needed to ensure the availability of large numbers of lateral entrants and also to reduce the risks associated with the elimination of training infrastructure. Accordingly, in this analysis we pursue occupations for which there is reasonable current and expected future civilian labor supply.

We used a Department of Labor crosswalk of military occupation codes (MOCs) to standard occupational classification (SOC) codes to identify primary civilian counterparts for military occupa-

tions with high training costs.<sup>4</sup> We then took data from the Bureau of Labor Statistics (BLS) on current unemployment rates and expected changes in employment rates by civilian occupation as measures of supply.

### **Occupations with Low Civilian Earnings**

Lateral entrants, like all recruits, must be offered adequate incentives to enter the military. The Canadian military offers generous enlistment bonuses as part of its lateral entry program. However, two important differences exist between the Canadian and American situations. First, the primary goal of the Canadian program is to fill shortages in selected occupations, whereas the main goal of a U.S. program would be to cut costs. Enlistment bonuses help the Canadian program achieve its goal, but bonuses would counteract the savings that would be the aim of a U.S. program. Second, the Canadian military training infrastructure is saturated. The training bottleneck for some occupations precludes recruitment of adequate numbers of personnel. By paying bonuses to attract lateral entrants, the Canadian program avoids costs required to augment its current training structure. The U.S. military training infrastructure does not constrain recruitment efforts. The military would generate cost savings by eliminating some of that infrastructure, but our review of past studies and programs suggests that paying enlistment bonuses would significantly diminish or completely counteract such savings.

For the reasons outlined above, a more practical incentive in the present case would be relatively high compensation. Occupations whose civilian practitioners earn less than their military counterparts carry a built-in incentive. We examined median earnings figures for civilian occupations along with corresponding earnings quartiles and military grade/years of service (YOS) to assess whether earnings were low enough to avoid other incentive costs. Unfortunately, the

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<sup>4</sup> A primary SOC code is designated for a single military occupation or skill code for all pay grades. Corresponding SOC codes are available at the five-digit level for Air Force occupations, so for some there are two or more primary civilian counterparts for a three-digit MOC.

makeup of the BLS median earnings figures is ambiguous and may vary from occupation to occupation, so determining the appropriate military earnings comparison is challenging.<sup>5</sup> We would therefore recommend more detailed examination of the earnings profile of any occupation that appears amenable to lateral entry based on this criterion.

### Analysis of Occupations and Evaluation of Candidates

The relevant data appear in Tables 3.1 through 3.4. The first three tables list the top 10 percent of military occupations by training cost along with their training costs and their primary civilian counterparts for the Army, Navy, and Air Force, respectively. The fourth table includes total employment figures, unemployment rates, and median earnings information for each civilian occupation that corresponds to at least one military occupation in the first three tables.

The four rows in italics indicate occupations that are on the list of occupations with high training costs in one military service and currently have high unemployment rates. Although three of those four occupations fall in the BLS high-earnings quartile, their corresponding military pay grade might still be considered a reasonable entry point for a lateral entrant.

The results of this preliminary analysis should be considered with some caution for the following reason in addition to those mentioned above: The crosswalk to civilian occupations in the BLS Occupational Outlook Handbook does not include ratings of the quality of the military-civilian occupation match. Further, in three of the four highlighted cases, even the simple lexical match between occupation titles does not look very good. (One Air Force occupation, explosive ordnance disposal, appears as if it might have a reasonably close civilian match.) A more detailed analysis of the data reveals other potential impediments as well, including expected

<sup>5</sup> Another option is to use median enlisted 2002 RMC for E-3 to E-9, all years of service, which is \$40,835.

increases in employment rates, or decreased supply, during the next several years.

In short, our analysis generated four possible candidate occupations for lateral entry based on training cost, current unemployment rates, and median civilian earnings—one Army occupation, one Navy occupation, and two Air Force occupations. However, concerns about the existence of strong civilian counterparts, the reliability of civilian earnings data, and the stability of the external labor supply lead us to conclude that pursuing a policy of lateral entry of non-prior-service personnel on a large scale into even those four occupations does not show promise.



**Table 3.1**  
**Top 10 Percent of Army Occupations by Training Cost**

| MOC | MOC Title   | Training |                | Primary SOC Code | SOC Title   |
|-----|---|----------|----------------|------------------|---|
|     |   | Cost     | Length (weeks) |                  |   |
| 35H | TDME Maintenance Support Specialist                                   | \$85,828 | 33.4           | 49-9069          | Precision Instrument and Equipment Repairers, All Other                       |
| 35M | Radar Repairer  | \$78,627 | 44.8           | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment     |
| 35Y | <i>Integrated Family of Test Equipment (IFTE) Operator-Maintainer</i> | \$77,191 | 33.2           | 51-9061          | <i>Inspectors, Testers, Sorters, Samplers, and Weighers</i>                   |
| 33W | Electronic Warfare/Intercept Systems Repairer                         | \$72,367 | 41.2           | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment     |
| 96U | Unmanned Aerial Vehicle Operator                                      | \$64,874 | 23.6           | 17-3024          | Electro-Mechanical Technicians  |
| 35D | Air Traffic Control Equipment Repairer                                | \$57,109 | 34.2           | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment     |
| 45G | Fire Control Repairer   | \$55,029 | 25.4           | 49-9069          | Precision Instrument and Equipment Repairers, All Other                       |
| 31S | Satellite Communications  | \$48,705 | 35.2           | 49-2022          | Telecommunications Equipment Installers and Repairers, Except Line Installers |
| 45K | Armament Repairer   | \$45,634 | 18.4           | 49-9099          | Installation, Maintenance, and Repair Workers, All Other                      |
| 74G | Telecom Component Operator-Maintainer                                 | \$44,850 | 17.4           | 15-1081          | Network Systems and Data Communications Analysts                              |
| 27T | Avenger System Repairer   | \$43,142 | 19.6           | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment     |
| 27M | Multiple-Launch Rocket System (MLRS) Repairer                         | \$42,797 | 23.6           | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment     |
| 27E | Land Combat Electronic Missile System Repairer                        | \$41,710 | 24.0           | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment     |
| 35R | Avionic Systems Repairer  | \$40,630 | 28.2           | 49-2091          | Avionics Technicians  |

Table 3.1—continued

| MOC | MOC Title  | Training      |                |                  | SOC Title   |
|-----|--|---------------|----------------|------------------|---|
|     |  | Training Cost | Length (weeks) | Primary SOC Code |   |
| 31P | Microwave Systems Operator-Maintainer                | \$37,263      | 27.4           | 49-2021          | Radio Mechanics   |
| 35L | Avionic Communications Equipment Repairer            | \$36,981      | 23.6           | 49-2091          | Avionics Technicians  |
| 68S | OH-58D Armament/Electrical/Avionics Systems Repairer | \$36,630      | 29.6           | 49-3011          | Aircraft Mechanics and Service Technicians                                |
| 63A | Abrams Tank Maintainer                               | \$36,294      | 16.0           | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment |

**Table 3.2**  
**Top 10 Percent of Navy Occupations by Training Cost**

| MOC | MOC Title                                  | Training         |                   |         | Primary<br>SOC Code   | SOC Title |
|-----|--|------------------|-------------------|---------|---|-----------|
|     |  | Training<br>Cost | Length<br>(weeks) |         |   |           |
| CM  | Construction Mechanic                      | \$32,889         | 13.0              | 49-3042 | Mobile Heavy Equipment Mechanics, Except Engines                          |           |
| CTM | Cryptologic Maintenance Technician         | \$30,883         | 17.4              | 49-2094 | Electrical and Electronics Repairers, Commercial and Industrial Equipment |           |
| GSE | Gas Turbine Systems Technician—Electrician | \$28,805         | 25.0              | 49-9042 | Maintenance and Repair Workers, General                                   |           |
| ET  | Electronics Technician                     | \$25,374         | 23.9              | 49-2094 | Electrical and Electronics Repairers, Commercial and Industrial Equipment |           |
| CTR | Cryptologic Technician “R”                 | \$22,430         | 16.6              | 43-2099 | Communications Equipment Operators, All Other                             |           |
| AC  | Air Traffic Controller                     | \$22,020         | 16.0              | 53-2021 | Air Traffic Controllers   |           |

**Table 3.3**  
**Top 10 Percent of Air Force Occupations by Training Cost**

| MOC | MOC Title  | Training Cost | Training Length (weeks) | Primary SOC Code | SOC Title   |
|-----|--|---------------|-------------------------|------------------|---|
| 9S1 | Technical Applications Specialist                    | \$54,966      | 47.0                    | 19-4099          | Life, Physical, and Social Science Technicians, All Other                 |
| 4R0 | Diagnostic Imaging                                   | \$53,985      | 45.2                    | 29-2034          | Radiologic Technologists and Technicians                                  |
|     |  |               |                         | 29-2032          | Diagnostic Medical Sonographers   |
|     |  |               |                         | 29-2033          | Nuclear Medicine Technologists  |
| 1T0 | Survival, Evasion, Resistance, and Escape Operations | \$53,818      | 32.6                    | 25-3099          | Teachers and Instructors, All Other                                       |
| 1N3 | Cryptologic Linguist                                 | \$49,735      | 51.7                    | 27-3091          | Interpreters and Translators  |
| 4T0 | Medical Laboratory                                   | \$46,910      | 51.0                    | 29-2011          | Medical and Clinical Laboratory Technologists                             |
| 2E0 | Ground Radar Systems                                 | \$42,459      | 40.1                    | 49-2094          | Electrical and Electronics Repairers, Commercial and Industrial Equipment |
|     |  |               |                         | 49-2011          | Computer, Automated Teller, and Office Machine Repairers                  |
| 3E8 | Explosive Ordnance Disposal                          | \$41,494      | 35.8                    | 13-1061          | Emergency Management Specialists  |
|     |  |               |                         | 47-5031          | Explosives Workers, Ordnance Handling Experts, and Blasters               |
| 4B0 | Bioenvironmental Engineering                         | \$39,647      | 18.9                    | 29-9011          | Occupational Health and Safety Specialists                                |
| 4U0 | Orthotic   | \$39,457      | 51.1                    | 29-9012          | Occupational Health and Safety Technicians                                |
| 4H0 | Cardiopulmonary Laboratory                           | \$37,686      | 44.5                    | 51-9082          | Medical Appliance Technicians   |
|     |  |               |                         | 29-2031          | Cardiovascular Technologists and Technicians                              |

Table 3.4  
Employment and Earnings Data Projections

| Occupation  | 2000-2010                     |                             |                    |           | Median Earnings (Dollars) | Median Earnings Quartile* | Comparable Military Pay Grade/YOS |
|---|-------------------------------|-----------------------------|--------------------|-----------|---------------------------|---------------------------|-----------------------------------|
|   | 2000 Total Employment (000's) | Employment Change (percent) | Unemployed Workers | Quartile* |                           |                           |                                   |
| Total, all occupations  | 145,594                       | 15.2                        | -                  | -         | -                         | -                         | -                                 |
| Maintenance and repair workers, general                                       | 1,251                         | 4.7                         | H                  | H         | 27,850                    | H                         | E3/<2                             |
| All other teachers, primary, secondary, adult                                 | 648                           | 19.7                        | L                  | L         | 28,640                    | H                         | E3/2                              |
| Inspectors, testers, sorters, samplers, and weighers                          | 602                           | -1.9                        | H                  | H         | 25,420                    | L                         | E1/>2                             |
| All other installation, maintenance, and repair workers                       | 228                           | 11.5                        | L                  | L         | 32,437                    | H                         | E4/4                              |
| Telecommunications equipment installers and repairers, except line installers | 189                           | -3.1                        | VL                 | VL        | 44,030                    | VH                        | E6/8                              |
| Computer, automated teller, and office machine repairers                      | 172                           | 14.2                        | L                  | L         | 31,380                    | H                         | E4/2                              |
| Radiologic technologists and technicians                                      | 167                           | 23.1                        | VL                 | VL        | 36,000                    | H                         | E5/3; E6/1                        |
| Aircraft mechanics and service technicians                                    | 158                           | 16.7                        | VL                 | VL        | 40,550                    | VH                        | E5/10; E6/4                       |
| Medical and clinical laboratory technologists                                 | 148                           | 17.0                        | L                  | L         | 40,510                    | VH                        | E5/10; E6/4                       |
| All other life, physical, and social science technicians                      | 133                           | 21.7                        | L                  | L         | 30,300                    | H                         | E4/<2                             |
| Mobile heavy equipment mechanics, except engines                              | 130                           | 14.0                        | L                  | L         | 33,950                    | H                         | E4/6; E5/<2                       |
| Network systems and data communications analysts                              | 119                           | 77.5                        | VL                 | VL        | 54,510                    | VH                        | E7/20                             |
| Electrical and electronics repairers, commercial and industrial equipment     | 90                            | 9.2                         | L                  | L         | 36,910                    | H                         | E5/4; E6/1                        |
| Electromechanical technicians   | 43                            | 14.5                        | L                  | L         | 36,150                    | H                         | E5/4                              |
| Cardiovascular technologists and technicians                                  | 39                            | 34.9                        | VL                 | VL        | 33,350                    | H                         | E4/4; E5/<2                       |
| Occupational health and safety specialists                                    | 35                            | 15.0                        | L                  | L         | 42,750                    | VH                        | E6/6                              |

Table 3.4—continued

| Occupation   | 2000–2010                     |                  |                    |           | Median Earnings (Dollars) | Median Earnings Quartile* | Comparable Military Pay Grade/YOS |
|--|-------------------------------|------------------|--------------------|-----------|---------------------------|---------------------------|-----------------------------------|
|  | 2000 Total Employment (000's) | Change (percent) | Unemployed Workers | Quartile* |                           |                           |                                   |
| Diagnostic medical sonographers                        | 33                            | 26.1             | VL                 | VL        | 44,820                    | VH                        | E6/10                             |
| Air traffic controllers                                | 27                            | 7.2              | VL                 | VL        | 82,520                    | VH                        | MS/26                             |
| All other communications equipment operators           | 26                            | -21.8            | VL                 | VL        | 30,220                    | H                         | E4/<2                             |
| <i>Interpreters and translators</i>                    | 22                            | 23.8             | H                  | H         | 31,110                    | H                         | E4/2                              |
| Nuclear medicine technologists                         | 18                            | 22.4             | VL                 | VL        | 44,130                    | VH                        | E6/8                              |
| Avionics technicians                                   | 16                            | 9.8              | L                  | L         | 41,300                    | VH                        | E6/4                              |
| All other precision instrument and equipment repairers | 15                            | 6.8              | L                  | L         | 41,320                    | VH                        | E6/6                              |
| Medical appliance technicians                          | 13                            | 19.0             | VL                 | VL        | 24,900                    | L                         | E1/<2                             |
| Emergency management specialists                       | 10                            | 18.1             | L                  | L         | 39,210                    | H                         | E5/8; E6/2                        |
| Radio mechanics  | 7                             | -24.2            | VL                 | VL        | 32,990                    | H                         | E4/4; E5/2                        |

NOTES: VH (very high) = more than 6.5 percent unemployed workers or more than \$39,660 in median annual earnings; H (high) = between 3.7 percent and 6.5 percent unemployed workers or between \$25,760 and \$39,660 in median annual earnings; L (low) = between 1.9 percent and 3.7 percent unemployed workers or between \$18,500 and \$25,760 in annual earnings; VL (very low) = less than 1.9 percent unemployed workers or less than \$18,500 in annual earnings.

SOURCE: BLS, Occupational Outlook Handbook, available at <http://data.bls.gov/oes/noetd/empoptd.jsp>.

## Conclusions and Recommendations

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The Department of Defense has outlined a strategic human resource management plan as a means of moving toward transformation. Such plans are strategic to the extent they connect to both mission and environment. The missions and environment of the military have changed significantly over the last four decades. For example, the 1960s and 1970s were characterized by the Vietnam War and its aftermath, and the next two decades by the continuing Cold War with the Soviet Union and its aftermath. The resulting environment faced by military personnel managers was one of large swings in military size and turnover rates. In the early 1970s, the military was large, had short terms of service (conscription term was two years) and high turnover, and had a different occupational composition. In 2002, the military is much smaller, has longer average terms of service and less turnover, and exhibits an occupational mix tilted toward technicians. The result has been a shift in accession and training from high-turnover combat arms/seamanship specialties to lower-turnover, more specialized occupations. However, the accession and training culture appears to remain structured around the former environment that had high fixed but low variable personnel management costs. The current environment has high fixed costs and high variable costs.

Lateral entry of non-prior-service personnel into enlisted, active-duty occupations has been frequently suggested as a means to meet needs for trained and experienced personnel while reducing at least the variable cost of training. We identified the goals of lateral entry and linked the goals to prospective programs. Reducing costs of

training was identified as the principal goal of lateral entry programs. That savings goal motivated the research for this report. Accordingly, we sought implementations of lateral entry that could significantly reduce the costs of training. As noted in Chapter Three, we employed only one of three possible criteria for selecting occupations consistent with the goal of reducing training costs (i.e., occupations with high training costs relative to other military occupations). Lists of candidates generated using the other two criteria—high training costs relative to civilian counterparts, and lower training costs but large numbers of personnel to be trained would be equally valid and likely different in composition from the list generated here. Further analyses using the other two selection criteria might also produce qualitatively different outcomes.

Based on our present analysis, we conclude that expanding the use of lateral entry into enlisted active-duty occupations is unlikely to be successful as a means to reduce training costs on a significant scale in the absence of structural changes to the training base. In Chapter Three, we identified the criteria necessary for success without such structural changes: one or more civilian counterpart occupations, high training costs, reasonable current and expected external labor supply, and low civilian earnings. We found very few occupations that meet all of those criteria. We therefore make the following recommendations:

- In the near term, refrain from launching pilot studies or new programs that focus on introducing lateral entry of non-prior-service personnel into enlisted occupations that do not currently accept lateral entrants. Our analysis suggests that they are unlikely to be successful in reducing training costs on a meaningful scale without introducing serious force management risks.
- Explore options for increased lateral entry of prior-service personnel—both active-duty and reserve component. By recruiting prior-service personnel back into the same occupations, the military services can amortize training costs over a longer career, avoid new training costs, and minimize the field turbulence



caused by lateral entry. The Canadian Forces lateral entry program currently accepts personnel with prior military service as well as transfers from the Reserves. Indeed, the program prefers such entrants to those without prior service. The belief is that, because entrants with prior service have a realistic understanding of the job and the military culture, they may be more satisfied members who are better accepted by their peers.

- If the goals of filling personnel gaps or expanding recruiting markets advance in priority, consider improving and enhancing ACASP and DPEP. Though currently used sparingly, both programs have some degree of established infrastructure. The Army already plans to revisit the selection of ACASP occupations and the requirements for lateral entrants, and a possibility exists that DPEP will be expanded as part of the Navy's Task Force Excel. Integrating program goals into recruiter training and incentives will be a key to any improvement efforts, as will consideration of incentives for recruits. Both programs would be helped by the support of strong, high-level service advocates who could raise the visibility of the programs, encourage program use, and manage the cultural integration of lateral entrants into the force.

APPENDIX

## Occupations in Existing Lateral Entry Programs

**Table A.1**  
**ACASP Occupational Specialties**

| MOS      | Occupation Title   |
|----------|--|
| 27B10    | Land Combat Support System Test Specialist                               |
| 27E10    | Land Combat Electronic Missile System Repairer                           |
| 31C10    | Single Channel Radio Operator  |
| 31I10    | Cable Systems Installer-Maintainer                                       |
| 35H10    | Test Measurement and Diagnostic Equipment Maintenance Support Specialist |
| 36L10    | Transportable Automatic Switching System Operator/Maintainer             |
| 39C10    | Target Acquisition/Surveillance Radar Repairer                           |
| 39E10    | Special Electrical Devices Repairer                                      |
| 91E10N5  | Dental Laboratory Specialist   |
| 42E10/20 | Optical Laboratory Specialist  |
| 43M10    | Fabric Radar Specialist  |
| 44B10    | Metal Worker   |
| 44E10    | Machinist  |
| 45B10    | Small Arms/Artillery Repairer  |
| 46Q10    | Journalist   |
| 46R10    | Broadcast Journalist   |
| 51B10    | Carpentry and Masonry Specialist   |
| 51K10    | Plumber  |
| 51M10    | Firefighter  |
| 52C10    | Utilities Equipment Repairer   |
| 52D10    | Power Generation Equipment Repairer                                      |
| 57E10    | Laundry and Bath Specialist  |
| 57F10    | Mortuary Affairs Specialist  |
| 62B10    | Construction Equipment Repairer  |
| 62E10    | Heavy Construction Equipment Operator                                    |
| 62F10    | Crane Operator   |

Table A.1—continued

| MOS        | Occupation Title                           |
|------------|--|
| 62G10      | Quarrying Specialist                       |
| 62H10      | Concrete and Asphalt Equipment Operator    |
| 62J10      | General Construction Equipment Operator    |
| 63G10      | Fuel and Electrical Systems Repairer       |
| 63H10      | Track Vehicle Repairer                     |
| 67N10      | UH-1 Helicopter Repairer                   |
| 67T10      | UH-60 Helicopter Repairer                  |
| 67U10      | CH-47 Helicopter Repairer                  |
| 68B10      | Aircraft Power Plants Repairer             |
| 68D10      | Aircraft Powertrain Repairer               |
| 68H10      | Aircraft Pneudraulics Repairer             |
| 68L10      | Avionics Communications Equipment Repairer |
| 68N10      | Avionics Mechanic                          |
| 68Q10      | Avionics and Flight System Repairer        |
| 68R10      | Avionics Radar Repairer                    |
| 71G10      | Patient Administration Specialist          |
| 76J10      | Medical Supply Specialist                  |
| 77L10      | Petroleum Laboratory Specialist            |
| 77W10      | Water Treatment Specialist                 |
| 81B10      | Technical Drafting Specialist              |
| 81C10      | Cartographer                               |
| 82B10      | Construction Surveyor                      |
| 82D10      | Topographic Surveyor                       |
| 83E10      | Photo and Layout Specialist                |
| 83F10      | Printing and Bindery Specialist            |
| 88H10      | Cargo Specialist                           |
| 88K10      | Watercraft Operator (Seaman)               |
| 88L10      | Watercraft Engineer (Engineman)            |
| 88M10      | Motor Transport Operator                   |
| 91B10      | Medical Specialist                         |
| 91B10/20P1 | Orthopedic Specialist                      |
| 91B10NP    | Occupational Therapy Specialist            |
| 91B10P2    | Ear, Nose, and Throat Specialist           |
| 91B10P3    | Eye Specialist                             |
| 91C20      | Practical Nurse                            |
| 91D10      | Operation Room Specialist                  |
| 91E10      | Dental Specialist                          |
| 91B10N9    | Physical Therapy Specialist                |
| 91K10      | Medical Laboratory Specialist              |
| 91K20M2    | Cytology Specialist                        |
| 91K20P9    | Biological Science Assistant               |
| 91M10      | Hospital Food Service Specialist           |

Table A.1—continued

| MOS        | Occupation Title                          |
|------------|---|
| 62G10      | Quarrying Specialist                      |
| 91S10/20N4 | X-Ray Specialist                          |
| 91Q10/20   | Pharmacy Specialist                       |
| 91T10      | Animal Care Specialist                    |
| 91V20      | Respiratory Specialist                    |
| 93C10      | Air Traffic Control Operator              |
| 93D10      | Air Traffic Control Equipment Repairer    |
| 94B10      | Food Service Specialist                   |
| 96B10      | Intelligence Analyst                      |
| 96D10      | Imagery Analyst                           |
| 97B1L      | Counterintelligence Agent (Linguist only) |
| 02B10/20   | Trumpet Player                            |
| 02C10/20   | Baritone or Euphonium Player              |
| 02D10/20   | French Horn Player                        |
| 02E10/20   | Trombone Player                           |
| 02F10/20   | Tuba Player                               |
| 02G10/20   | Flute or Piccolo Player                   |
| 02H10/20   | Oboe Player                               |
| 02J10/20   | Clarinet Player                           |
| 02K10/20   | Bassoon Player                            |
| 02L10/20   | Saxophone Player                          |
| 02M10/20   | Percussion Player                         |
| 02N10/20   | Piano Player                              |
| 02T10/20   | Guitar Player                             |
| 02U10/20   | Electric Bass Guitar Player               |

Table A.2  
DPEP Ratings

| Rating      | Occupation Title       |
|-------------|------------------------|
| MA          | Master-at-Arms         |
| HM NEC 8496 | Mortician              |
| HM NEC 8452 | Radiographer           |
| HM NEC 8427 | Medical Lab Technician |
| DT NEC 8708 | Dental Hygienist       |

**Table A.3**  
**Canadian Forces Program Understrength Occupations**

| Occupation Code  | Occupation Title  |
|------------------|---|
| ATIS TECH 226    | Aerospace Telecommunications and Information Systems Technician |
| BE TECH 718      | Biomedical Electronics Technician                               |
| DENT CL A 722    | Dental Clinical Assistant                                       |
| ED TECH 642      | Electrical Distribution Technician                              |
| EGS TECH 643     | Electrical Generation Systems Technician                        |
| FCS TECH 434     | Fire Control Systems Technician                                 |
| LCIS TECH 227    | Land Communications and Information Systems Technician          |
| MAR ENG MECH 312 | Marine Engineering Mechanic                                     |
| MLAB TECH 714    | Medical Laboratory Technician                                   |
| MP 811           | Military Police   |
| NE TECH (A) 283  | Naval Electronics Technician (Acoustic)                         |
| NE TECH (C) 284  | Naval Electronics Technician (Communications)                   |
| NE TECH (T) 285  | Naval Electronics Technician (Tactical)                         |
| PH TECH 646      | Plumbing and Heating Technician                                 |
| PMED TECH 716    | Preventative Medicine Technician                                |
| SIG OPS 215      | Signal Operator   |
| TAS OP 278       | Tactical Acoustic Sensor Operator                               |
| VEH TECH 411     | Vehicle Technician  |
| W TECH L 421     | Weapons Technician Land   |
| X TECH 715       | X-Ray Technician  |

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The U.S. military constantly evaluates its personnel system to find optimal ways to obtain the types of personnel to execute its missions most efficiently. Will it get better results if it expands its program to allow civilians with appropriate education and experience to enter the military laterally? The authors analyzed occupations in the Army, Air Force, and Navy and concluded that pursuing a policy of large-scale lateral entry did not show promise. They recommended that the Army and Navy leave their lateral entry programs intact for possible expansion, should future conditions warrant it.

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